

POWER OF ATTORNEY

We hereby appoint the following attorney(s) and/or agent(s) to prosecute this application, to make alterations and amendments therein, to receive the patent and all correspondence relating to this application, and to transact all business in the United States Patent and Trademark Office connected therewith, and the said attorneys or agents are hereby given full power of substitution and revocation:

Gregory P. Einhorn, Reg. No. 38,440
Kenneth A. Weber, Reg. No. 31,677
M. Henry Heines, Reg. No. 28,219
Carol Miernicki Steeg, Reg. No. 39,539

Please address all correspondence concerning this application to Gregory P. Einhorn, TOWNSEND and TOWNSEND and CREW LLP, Two Embarcadero Center, 8th Floor, San Francisco, CA 94111-3834.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of inventor: Laurie A. GRAHAM


Inventor's Signature

October 2, 1997 Canada
Dated Citizenship

31 Stanley Street, Apt. 13
Kingston, Ontario, K7K 1X8, Canada
Residence and Post Office Address

Full name of inventor: Yih-Cherng LIOU

Yih-Cherng Liou
Inventor's Signature

Oct 3rd, 1997 Canada
Dated Citizenship

15 MacPherson Avenue, Apt. 18-102
Kingston, Ontario, K7M 2W8, Canada
Residence and Post Office Address

Full name of inventor: Virginia K. WALKER

Virginia K Walker
Inventor's Signature

Oct 2, 1997 Canada
Dated Citizenship

R.R. #1
Sydenham, Ontario, K0H 2T0, Canada
Residence and Post Office Address

Full name of inventor: Peter L. DAVIES

Peter L. Davies
Inventor's Signature

October 2nd, 1997 Canada
Dated Citizenship

100 Dickens Drive
Kingston, Ontario, K7M 2M8, Canada
Residence and Post Office Address

Attorney Docket No. 016252-002100US

POWER OF ATTORNEY BY ASSIGNEE

Queen's University at Kingston is the Assignee of the invention entitled: TENEbrio
ANTIFREEZE PROTEINS, the specification of which ___ is attached hereto or X was filed
on June 26, 1997, as Application Serial No. 08/882,907.

Assignee hereby appoints the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Gregory P. Einhorn, Reg. No. 38,440
Kenneth A. Weber, Reg. No. 31,677
M. Henry Heines, Reg. No. 28,219
Carol Miernicki Steeg, Reg. No. 39,539

Send Correspondence to:

Gregory P. Einhorn, Esq.
TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, 8th Floor
San Francisco, CA 94111-3834

Direct Telephone Calls to:
(Name, reg. no., tele. no.)

Gregory P. Einhorn
Reg. No. 38,440
(415) 576-0200

Queen's University at Kingston

Date: October 6, 97

By: Suzanne Kiteu
(Signature)

Name: Suzanne Fortier
Title: Vice-Principal (Operations)

Applicant or Patentee: Laurie A. Graham, Yih-Cherng Liou, Virginia K. Walker
and Peter L. Davies

Attorney's Docket Number: 016252-002100US

Serial No.: 08/882,907

Filed: June 26, 1997

For: TENEBRIO ANTIFREEZE PROTEINS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9 (f) and 1.27 (d) - NONPROFIT ORGANIZATION)

I hereby declare that I am an official empowered to act on behalf of the nonprofit organization identified below:

NAME OF ORGANIZATION: Queen's University at Kingston
ADDRESS OF ORGANIZATION: Kingston, Ontario K7L 3N6 Canada
TYPE OF ORGANIZATION:

- ☒ UNIVERSITY OR OTHER INSTITUTION OF HIGHER EDUCATION
☐ TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3))
☐ NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA (NAME OF STATE _____)
 CITATION OF STATUTE _____
☐ WOULD QUALIFY AS TAX EXEMPT UNDER INTERNAL REVENUE SERVICE CODE (26 USC 501(a) and 501(c)(3) IF LOCATED IN THE UNITED STATES OF AMERICA
☐ WOULD QUALIFY AS NONPROFIT SCIENTIFIC OR EDUCATIONAL UNDER STATUTE OF STATE OF THE UNITED STATES OF AMERICA IF LOCATED IN THE UNITED STATES OF AMERICA
 (NAME OF STATE _____)
 (CITATION OF STATUTE _____)

I hereby declare that the nonprofit organization identified above qualifies as a nonprofit organization as defined in 37 CFR 1.9(e) for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code with regard to the invention entitled **TENEBRIO ANTIFREEZE PROTEINS** by inventor(s) Laurie A. Graham, Yih-Cherng Liou, Virginia K. Walker and Peter L. Davies

- ☐ the specification filed herewith
☒ application serial no. 08/882,907 filed: June 26, 1997
☐ patent no. issued

I hereby declare that rights under contract or law have been conveyed to and remain with the nonprofit organization with regard to the above identified invention.

If the rights held by the nonprofit organization are not exclusive, each individual concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e). *NOTE: Separate verified statements are required from each named person or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

NAME: A/F Protein Inc.

ADDRESS: 935 Main Street, Suite 1, Waltham, MA 02154

☐ INDIVIDUAL ☒ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate (37 CFR 1.28(b))

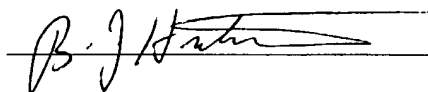
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that wilful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such wilful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Dr. Bruce Hutchinson, Director (Research Services)

TITLE OF ORGANIZATION: Queen's University at Kingston

ADDRESS OF PERSON SIGNING: Kingston, Ontario K7L 3N6 Canada

SIGNATURE:



DATE:

1997.10.09

Applicant or Patent: Laurie A. Graham, Yih-Cherng Liou, Virginia K. Walker
and Peter L. Davies

Attorney's Docket Number: 016252-002100US

Serial No.: 08/882,907

Filed: June 26, 1997

For: TENEBRIO ANTIFREEZE PROTEINS

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9 (f) and 1.27 (c) - SMALL BUSINESS CONCERN

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN: A/F Protein Inc.
ADDRESS OF ORGANIZATION: 935 Main Street, Suite 1, Waltham, MA 02154

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention entitled TENEBRIO ANTIFREEZE PROTEINS by inventor(s) Laurie A. Graham, Yih-Cherng Liou, Virginia K. Walker and Peter L. Davies described in

- ☐ the specification filed herewith
☒ application serial no. 08/882,907
☐ patent no. filed: June 26, 1997
issued

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(c). *NOTE: Separate verified statements are required from each named person or organization having rights to the invention asserting to their status as small entities. (37 CFR 1.27)

NAME: Queen's University at Kingston
ADDRESS: Kingston, ON K7L 3N6 Canada
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☒ NONPROFIT ORGANIZATION
NAME:
ADDRESS:
☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING: Elliot Kozla
TITLE OF PERSON OTHER THAN OWNER: PRESIDENT

ADDRESS OF PERSON SIGNING: A/F Protein Inc.
935 Main Street, Suite 1, Waltham, MA 02154

SIGNATURE:  DATE: Nov 14, 1997
PRESIDENT

CERTIFICATE UNDER 37 C.F.R. § 3.73(b)

Applicant: Laurie A. Graham et al.

Application No.: 08/882,907 Filed: June 26, 1997

For: TENEbrio ANTIFREEZE PROTEINS

Queen's University at Kingston, a Corporation
(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc)

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. ☒ An assignment from the inventor(s) of the patent application identified above. The assignment was recorded in the Patent and Trademark Office at Reel _____, Frame(s) _____, or for which a copy thereof is attached.

OR

B. ☐ A chain of title from the inventor(s), of the patent application identified above, to the current assignee as shown below:

1. From: _____ To: _____
 The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
2. From: _____ To: _____
 The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.
3. From: _____ To: _____
 The document was recorded in the Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet.

☐ Copies of assignments or other documents in the chain of title are attached.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: October 6, 97
 Name: Suzanne Fortier
 Title: Vice-Principal (Research)
 Signature: Suzanne Fortier

ASSIGNMENT

We, Laurie A. GRAHAM, Yih-Cherng LIOU, Virginia K. WALKER, and Peter L. DAVIES, whose full post office addresses are 31 Stanley Street, Apt. 13, Kingston, Ontario, K7K 1X8, Canada; 15 MacPherson Avenue, Apt. 18-102, Kingston, Ontario, K7M 2W8, Canada; R.R. #1, Sydenham, Ontario, K0H 2T0, Canada; and 100 Dickens Drive, Kingston, Ontario, K7M 2M8, Canada, respectively, in consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, do hereby sell and assign to **Queen's University at Kingston**, a non-profit educational corporation, whose full post office address is Kingston, Ontario, K7L 3N6, Canada, (hereinafter **Queen's**) all our rights, title and interest, including priority rights, in and to our invention relating to TENEBRIO ANTIFREEZE PROTEINS, as set forth in the application for Letters Patent of the United States of America, Serial Number 08/882,907, filed June 26, 1997, in and for the United States of America, Canada, and all countries foreign thereto in its name or in any name at its election.

We hereby covenant and agree that we will execute or procure any further necessary documents of the title to said invention and Letters Patent; and that we will, at any time, upon the request and at the expense of Queen's, execute and deliver any and all papers that may be necessary or desirable to perfect the title to said invention, or any Letters Patent which may be granted therefor, to Queen's; we will, at any time, upon the request and at the expense of Queen's, testify in any legal proceedings, sign all lawful papers, execute any additional, divisional, substituting, continuing or reissue applications for patents for said invention, or any part or parts thereof; and we will make all rightful oaths and generally do all lawful acts to aid Queen's, its successors, assigns or other legal representatives to obtain and enforce patent protection in said invention in all countries, without further compensation, but at the expense of Queen's, its successors, assigns or other legal representatives.

And we hereby authorize and request the Commissioner of Patents or the Comptroller (as the case may be) to issue any and all Letters Patent for said invention or resulting from said application, or from any division, reissue or extension thereof, to Queen's as our sole assignee.

In testimony whereof I have hereunto set my hand:

this 2nd day of October, 1997.

Laurie A. Graham
Laurie A. Graham

In testimony whereof I have hereunto set my hand:

this 1st day of October, 1997.

Yih-Cheng Liou
Yih-Cheng Liou

In testimony whereof I have hereunto set my hand:

this 1st day of October, 1997.

Virginia K. Walker
Virginia K. Walker

In testimony whereof I have hereunto set my hand:

this 1st day of October, 1997.

Peter L. Davies
Peter L. Davies

CERTIFICATE

City of Kingston)
Province of Ontario)

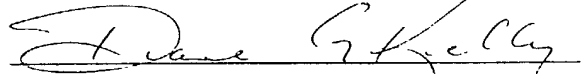
On this 2nd day of October, 1997, appeared before me in person the above Laurie A. Graham and acknowledged the above to be her signature, and that she signed and delivered the above instrument as her voluntary act and deed for the purposes herein set forth.

Richard John Hicks
RICHARD JOHN HICKS
Notary Public
NOTARY PUBLIC, PROVINCE OF ONTARIO
Province of Ontario
LIMITED TO THE ATTESTATION OF INSTRUMENTS AND THE TAKING OF AFFIDAVITS,
OR WORK IN CONNECTION WITH PATENTS, TRADEMARKS, COPYRIGHTS AND DESIGNS.
EXPIRES 22, NOVEMBER, 1999.

CERTIFICATE

City of Kingston)
Province of Ontario)

On this 1st day of October 1997, appeared before me in person the above Yih-Cherng Liou, and acknowledged the above to be his signature, and that he signed and delivered the above instrument as his voluntary act and deed for the purposes herein set forth.



Notary Public
Province of Ontario

CERTIFICATE

City of Kingston)
Province of Ontario)

On this 1st day of October 1997, appeared before me in person the above Virginia K. Walker, and acknowledged the above to be her signature, and that she signed and delivered the above instrument as her voluntary act and deed for the purposes herein set forth.

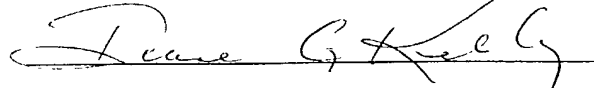


Notary Public
Province of Ontario

CERTIFICATE

City of Kingston)
Province of Ontario)

On this 1st day of October 1997, appeared before me in person the above Peter L. Davies, and acknowledged the above to be his signature, and that he signed and delivered the above instrument as his voluntary act and deed for the purposes herein set forth.



Notary Public
Province of Ontario